



## CITY OF ALBUQUERQUE CLIMATE ACTION PLAN [AUG.09]

Climate Action Task Force Recommendations to Mayor Martin J. Chávez



## Process

- About the Task Force
- About the Greenhouse Gas Inventory
- About the Climate Action Plan

## Climate Action Task Force Recommendations

- Business, Industry and Carbon Offset Opportunities
- Carbon Neutral Buildings
- Clean, Renewable Energy
- Complete, Livable Neighborhoods
- Local Food and Agriculture
- Recycling and Zero Waste
- Social Change
- Transportation

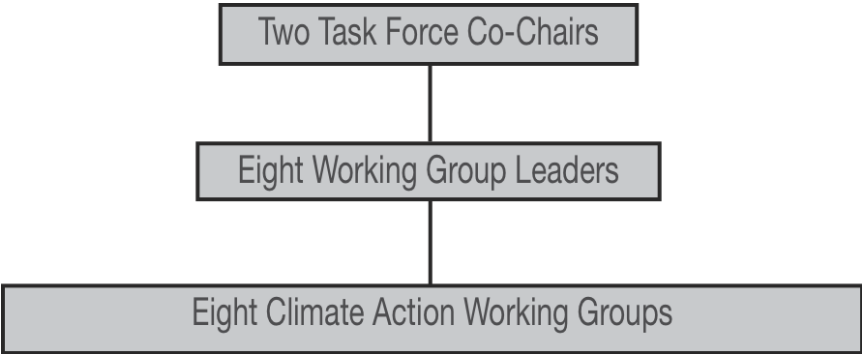
## What's Next?

- Public Input

## Acknowledgements

- Contributors

The Task Force is governed by the City of Albuquerque Climate Action Task Force Charter, which outlines the mission, organization and membership structure.



Business, Industry and Carbon Offset Opportunities



Local Food and Agriculture



Carbon Neutral Buildings



Recycling and Zero Waste



Clean, Renewable Energy



Social Change

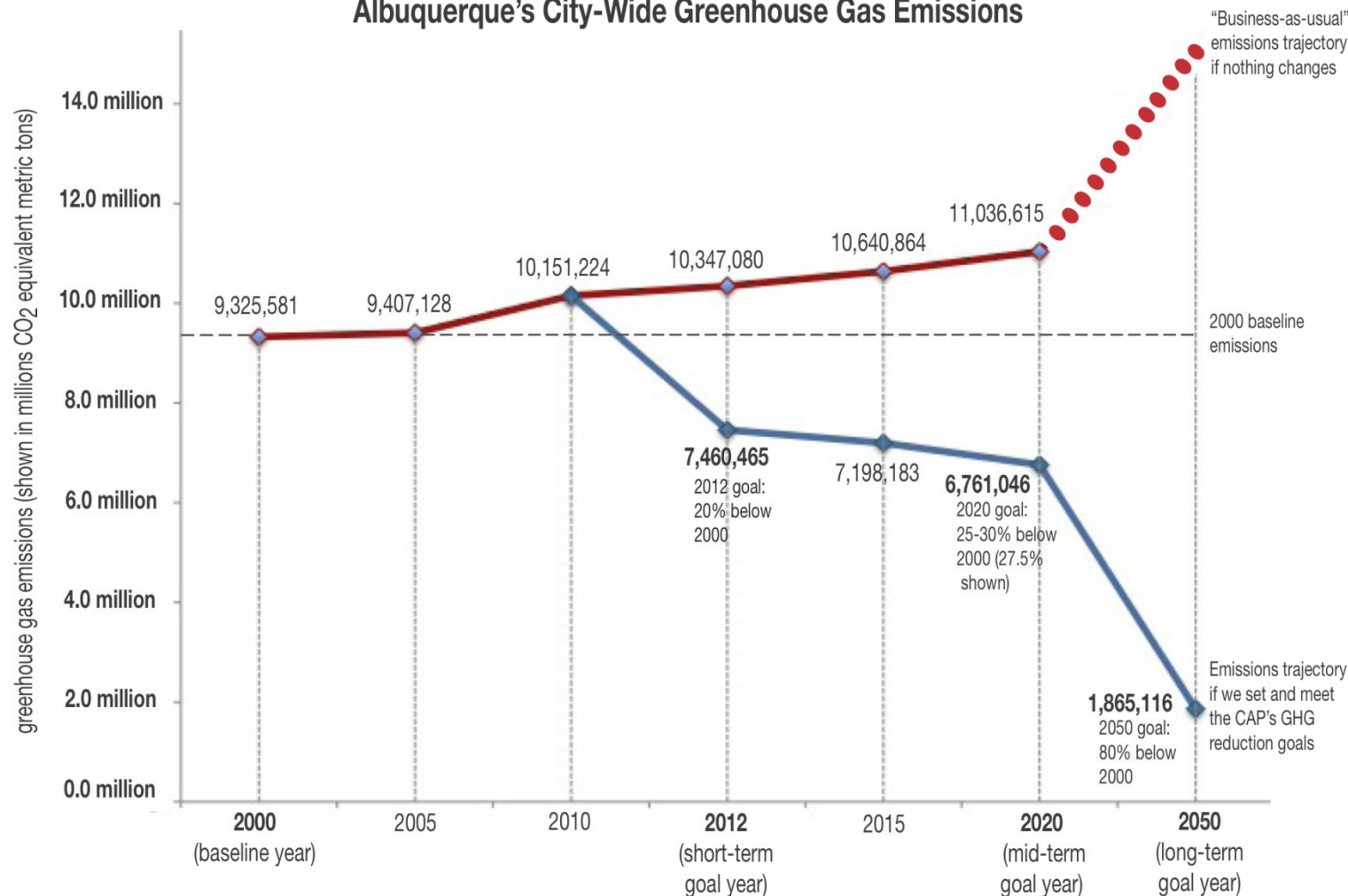


Complete, Livable Neighborhoods



Transportation

## Albuquerque's City-Wide Greenhouse Gas Emissions

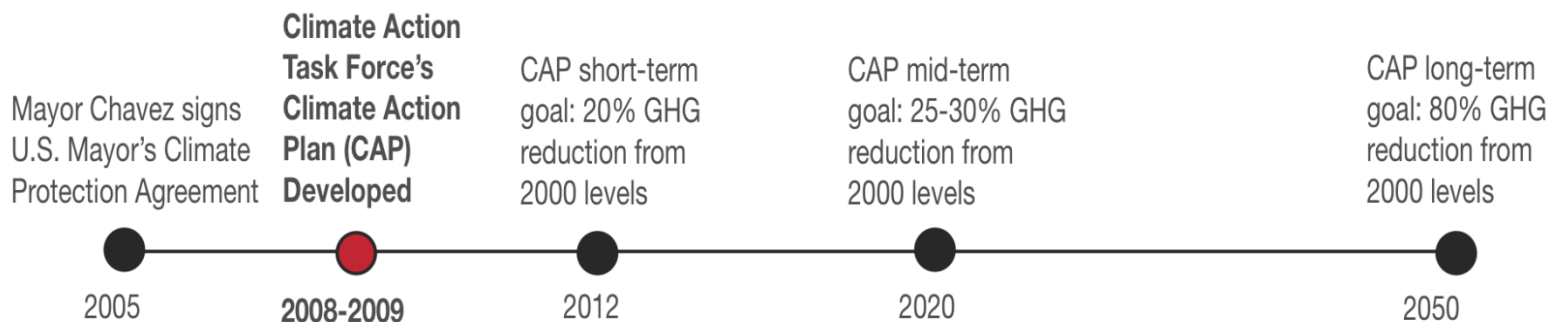


Source data is from information contained in the City of Albuquerque greenhouse gas inventory, which is calculated using the best available data at the time of publication.

## About the Climate Action Plan

Our objective is to develop an implementable climate change action plan that allows the community to reduce greenhouse gas emissions while balancing the environmental, social and economic interests of the citizens of Albuquerque.

To measure our progress, we set the following absolute greenhouse gas emissions reduction goals for the short-, mid- and long-term time frames.



## BUSINESS, INDUSTRY AND CARBON OFFSET OPPORTUNITIES

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**Our recommendations acknowledge the lack of certainty regarding a federal climate policy and ambiguity this creates for business and industry.**

**Rather than predict the outcomes and requirements of pending climate policy, we focus on strategies that prepare Albuquerque's business and industry sector for nationally regulated greenhouse gases, regardless of specific legislative outcomes.**

**Our strategies are designed to work within current voluntary state and regional initiatives as well as pending national climate policy.**

**Once a national climate policy is enacted, we ask the City, businesses and Task Force members to revisit our recommendations and re-calibrate the Climate Action Plan.**





### Strategy One

**Incent and Educate:** Develop climate-friendly business practices in the City of Albuquerque.

### Strategy Two

**Prepare:** Develop a carbon offset strategy that is based on best practices and incorporates actions that are likely to be consistent with national climate policy.

### Strategy Three

**Standardize:** Create a greenhouse gas emissions reduction initiative for business and industry that includes standardized measurement and verification protocols.

### Strategy Four

**Partner:** Create partnerships to facilitate carbon offset opportunities and provide green collar job training.





# Discussion Break

## CARBON NEUTRAL BUILDINGS

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**Because buildings account for an estimated 37% of the nation's greenhouse gas emissions, carbon-efficient buildings are critical (source: EIA).**

Mandated benchmarks for reducing carbon emissions are problematic when technological avenues to meet those mandates do not exist.

Technology always improves. As technology improves, carbon neutral buildings become more technologically and economically viable.

Short- and long-term goals provide a workable framework for the City and the public to achieve carbon neutrality.



**“Carbon neutral” means that—through a transparent process of measuring emissions, reducing those emissions and offsetting any unavoidable emissions—the net calculated carbon emissions of a building equals zero.**



## Carbon Neutral Buildings: Residential Buildings

### Strategy One

Reduce energy consumption in residential new construction.

### Strategy Two

Reduce energy consumption in existing housing stock.

### Strategy Three

Create City programs that provide sustainable development incentives and streamline building processes.



## Carbon Neutral Buildings: Commercial Buildings

### Strategy One

Increase energy efficiency of buildings.

### Strategy Two

Implement incentives to increase energy savings and reduce greenhouse gas emissions.

### Strategy Three

Provide funding mechanisms to achieve carbon neutral buildings, in both new development and retrofits.



### **Carbon Neutral Buildings: Onsite Power Generation**

#### **Strategy One**

Provide low- or no-interest loans to building owners to install onsite renewable energy systems for existing buildings.

#### **Strategy Two**

Provide new construction loan guarantees to commercial and residential lenders for onsite renewable energy systems.

#### **Strategy Three**

Add renewable energy and energy efficiency data to the Multiple Listing Service format.

#### **Strategy Four**

Encourage state tax credits for installing onsite renewable energy systems on commercial buildings.

#### **Strategy Five**

Encourage Bernalillo County to reduce property taxes for properties that have renewable energy systems installed on site.



### **Carbon Neutral Buildings: Onsite Power Generation**

#### **Strategy Six**

Support the continued elimination of gross receipts taxes / sales taxes for purchasing and installing onsite renewable energy generation systems.

#### **Strategy Seven**

Encourage the NM Public Regulation Commission to approve solar photovoltaic power purchase agreements for commercial buildings.

#### **Strategy Eight**

Encourage the NM Public Regulation Commission to allow third-party companies to lease onsite power generation equipment to commercial and residential property owners.

#### **Strategy Nine**

Reduce impact fees for qualified solar energy projects.

#### **Strategy Ten**

Retrofit City buildings with onsite renewable energy systems.





### **Carbon Neutral Buildings: Green Grid**

#### **Strategy One**

Partner with the State of New Mexico and the federal government to establish an initiative to develop, prototype and demonstrate green grid technology in New Mexico.



# Discussion Break

## CARBON NEUTRAL BUILDINGS

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## Clean, Renewable Energy

### Our approach:

**Identify clean, renewable energy options and strategies to significantly increase renewable energy use within the greater Albuquerque area over the next 40 years.**

**Increase energy efficiency in the same time frame in homes and in governmental, commercial and industrial operations throughout the greater Albuquerque area.**

**Collaborate with educational institutions, national laboratories and industry to foster research and development of energy efficiency and renewable energy solutions in the greater Albuquerque area.**



**Renewable energy (such as solar photovoltaics) and a renewable energy infrastructure are key to Albuquerque's sustainable energy future, green collar jobs and long-term energy independence.**



### Strategy One

Increase solar energy development and use from current levels of less than 1% to future levels of 70% of the metro region's renewable energy portfolio to help achieve the 2020 and 2050 GHG reduction goals.

### Strategy Two

Increase wind energy development and use from current levels of approximately 5% to future levels of 20% of the metro region's renewable energy portfolio to achieve 2020 and 2050 GHG reduction goals.

### Strategy Three

Increase biomass development and use from current levels of less than 1% to future levels of 5% of the metro region's renewable energy portfolio to help achieve the 2020 and 2050 GHG reduction goals.

### Strategy Four

Increase development and use of geothermal energy from current non-existent levels to 5% of the metro region's renewable energy portfolio to help achieve the 2020 and 2050 GHG reduction goals.

### Strategy Five

Achieve a minimum of 30% reductions in greenhouse gases through energy efficiency to help meet the 2020 and 2050 GHG reduction goals.



# Discussion Break

## COMPLETE, LIVABLE NEIGHBORHOODS

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## Complete, Livable Neighborhoods

Today, many communities are designed in such a way that residents are living farther from places of work, school and services, fostering an ever-increasing dependence on motor vehicles. Such community design results in rising levels of pollution (including greenhouse gases) associated with higher rates of car travel.

Benefits to creating complete, livable neighborhoods are:

- Greater reduction of vehicle transportation needs and associated emissions.
- Reduced cost to taxpayers for providing infrastructure.
- More efficient infrastructure, especially alternative renewable energy infrastructure.
- Wider range of housing options that support all ages.
- Greater support for economically viable transit systems and alternative modes of transportation.
- Greater connectivity and support for neighborhood businesses as well as a local economy.
- Healthier residents and youth with more walking and bicycling options.



**Complete, livable neighborhoods  
enhance our quality of life.**



### **Strategy One**

Engage jurisdictions in the region in a coordinated planning effort to develop a regional land use and climate performance strategy (regional strategy).

### **Strategy Two**

Accommodate growth in existing and new areas so as to structure the city around a network of centers and corridors that position dwellings within  $\frac{1}{4}$  mile of an activity center or transit corridor (local strategy).

### **Strategy Three**

Accommodate levels of mixed use and density that support convenient transit, walkability, jobs, recreation, civic spaces, a sense of community, and housing diversity in the city's neighborhoods (local strategy).

### **Strategy Four**

Accommodate different housing options in existing and new neighborhoods, communities and activity centers (local strategy).



# Discussion Break

## LOCAL FOOD AND AGRICULTURE

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## Local Food and Agriculture

**Food and agriculture account for over 20% of greenhouse gas emissions by city residents. These emissions come from burning fossil fuels in order to grow, process and deliver food.**

**The best way to create significant energy reductions and code compliance is through a thorough look at incentives that provide economic assistance to local growers and food retailers and encourage consumers to buy locally produced food.**



**Our principles:**

**Food accounts for a significant amount of emissions by a city's inhabitants. It is critical that food and agriculture become carbon-efficient.**

**It is problematic to mandate benchmarks without the technological avenue to meet those mandates.**

**Technology always improves. As it does, carbon-neutral food production will become more technologically and economically viable.**

**Achieving carbon neutrality requires the identification of both short- and long-term goals. Identifying the short-term goals and the long-term goals provides the City and the public with a reasonable framework to achieve carbon neutrality.**

**We view the approaches recommended by the Food and Agriculture Workgroup as a local form of homeland security.**



### **Strategy One**

Increase the amount of food produced inside city limits.

### **Strategy Two**

Support the development of the food shed in New Mexico.

### **Strategy Three**

Incorporate food and agriculture in planning, landscaping and design.

### **Strategy Four**

Engage every City department in promoting local food production and consumption.



# Discussion Break



## RECYCLING AND ZERO WASTE

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## Recycling and Zero Waste

**Decomposition of solid waste is a significant contributor to greenhouse gas emissions.** The City of Albuquerque is taking significant steps to reduce its waste through the adoption and implementation of a Zero Waste plan.

Zero Waste can be achieved by **recycling existing waste** and **reducing the need for recycling by reducing and reusing existing materials.**



Zero waste is based on the concept that wasting resources is inefficient and that we should work to use our natural resources efficiently.

Zero waste requires that we maximize our existing recycling and reuse efforts, ensure that we design products for the environment and ensure the potential to repair, reuse or recycle products.



### Strategy One

**Recycling Program:** Implement a commercial recycling program and increase residential recycling to achieve a recycling rate of 30% by 2020, exclusive of composting (see strategy three).

### Strategy Two

#### **Product Stewardship & Extended Producer**

**Responsibility:** By 2020, provide incentives and motivation strategies to retailers and manufacturers doing business in Albuquerque to take back products and packaging at the end of their useful life.

### Strategy Three

**Organic Waste Management:** Implement a comprehensive organic waste management system for both residential and commercial customers by 2020.



### Strategy Four

**Materials Exchange:** Develop a materials exchange program and resource center where residents and businesses can donate unwanted but reusable materials for reuse by classrooms and non-profits.

### Strategy Five

**Waste-to-Energy:** Develop a waste-to-energy program that consumes no more than 50% of the waste stream by 2020.

### Strategy Six

**Partnership/Coalitions:** Create working partnerships with producers and retailers, educational institutions, commercial and residential sectors, government and other non-profits to achieve zero waste and recycling goals by 2020.



# Discussion Break

## SOCIAL CHANGE

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## Social Change

Inspiring social change in support of the City of Albuquerque's climate change goals requires **commitment and action from all residents, institutions, businesses and City government.**

In this context, a comprehensive communications strategy is needed to effectively educate and encourage all stakeholders to take action.

To be truly sustainable, social change efforts must include rewards, role modeling and repeated behaviors that result from new policy, regulations and incentives.



Social change takes time. This is not an overnight or month-long advertising campaign.

Social change takes years of concerted effort. In our case, this is only the first phase of the effort.



### Strategy One

**Awareness:** Achieve a high public awareness of climate change issues and action opportunities, as identified by the Climate Action Plan.

### Strategy Two

**Understanding:** Empower leaders from key stakeholder groups to work together and with the City to address climate change issues as identified in the Climate Action Plan.

### Strategy Three

**Action:** Build many and diverse partnerships to assist in the education and social change agenda of the Climate Action Plan.

### Strategy Four

**Permanent Change:** Deliver targeted campaigns to those people and points of intervention whose emission-reducing behavior can be most readily affected by education on issues identified in the Climate Action Plan.





# Discussion Break

## TRANSPORTATION

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## Transportation

**Transportation is the fastest growing source of U.S. greenhouse gas emissions**, accounting for 47% of the net increase in total U.S. emissions since 1990. It has been estimated that transportation sources account for 29% to 59% of total U.S. greenhouse emissions in 2006.

**A strategic shift of transportation priorities to alternate modes of transportation** will assist the City of Albuquerque in achieving its sustainability and climate change strategies and short-, mid- and long-term greenhouse gas emissions reduction goals.

The city also needs to **systematically move from conventional fuels to alternative fuels** to power its transportation network in order to achieve its energy and emissions reduction goals.



Personal automobiles are a primary source of emissions.

Automobile use is a complex challenge with deep roots in socioeconomics, personal mobility, culture, status and values, safety, lifestyle patterns and expectations.

Evolving to a more sustainable and low-emission transportation will take time, but with steady work it can be achieved.



## Transportation Working Group's Framework

### **Provide alternatives to the automobile such as:**

Pedestrian trails, amenities and infrastructure  
Cycling networks, amenities and infrastructure

Car-pooling and car-sharing services

Transit systems

Land-use patterns that encourage walking and bicycling

Refining the City's land use policies to support convenient transit within a comfortable walking distance of every home and business within the city.

### **Vehicles and fuels:**

Support more efficient vehicles and cleaner fuels.

### **Parking:**

Address parking policies and parking supply to ensure that parking supports sustainability objectives.

### **Street design:**

Refine street design standards to make the city safer and more pedestrian and bicycle-friendly.

### **Communications:**

Promote education and new paradigms for Albuquerque residents and businesses on more sustainable transportation options.



### **Strategy One**

Become the most walkable and bicycle friendly city in the Southwest.

### **Strategy Two**

Offer the best transit service of any city in the Southwest.

### **Strategy Three**

Ensure that fuels sold in the City are increasingly clean (ethanol, biodiesel, natural gas, electricity and others) and that they reduce greenhouse gas emissions.



### **Strategy Four**

Encourage the use of more efficient modes of travel and transportation by simultaneously and strategically constraining the parking supply.

### **Strategy Five**

Develop streets in Albuquerque that meet a broad range of sustainability objectives.

### **Strategy Six**

Raise awareness and motivate citizens to pursue sustainable, low-emissions transportation choices.



# Discussion Break

## WHAT'S NEXT?

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Now that the work of the Climate Action Task Force is complete, we offer our strategies to the City officials and to the public for review, comments and discussion.

Through public dialog, town hall meetings and policy discussions, we look forward to discussing our recommendations and moving them from paper to policy.



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